



Bijou MIDI Show Control

The bijou will send and receive MIDI Show Control commands following the guidelines of the International MIDI Association's "MIDI Show Control (MSC) 1.0". The following lists the commands with examples that the Bijou recognizes.

MSC is a command protocol using standard MIDI cables. The commands are sent in a series of bytes called a "sysex" for system exclusive format. The sysex contains control codes, device IDs, commands and data. A generic sysex is as follows (values are in hex):

```
F0 7F <device_ID> <msc> <command_format> <command> <data> F7
```

<device_ID> is set in the Bijou's setup screen as "MIDI ID"
<msc> is 02 meaning MIDI Show Control
<command_format> is 01 meaning lighting
<command> is the code for which command send
<data> is further data such as cue number if needed

So any sysex for the console would look like:

```
F0 7F <ID> 02 01 <command> <data> F7
```

For command associated with cues there is an optional data component called "Q_list". This denotes which fader to use. If no fader is specified then the XY fader is used.

All cues and cue lists are presented in ASCII hex format. This means that cue numbers are sent in a series of alpha characters. For example 32.5 is sent with the hex values 33 32 2e 35. Essentially, each number is turned into an alpha character by adding 30 hex. The 2e is the decimal point.

Receiving MIDI:

Command:	GO (cue) (fader)
Description:	a GO command with optional cue and fader data
Examples:	GO (default fader XY) F0 7F <ID> 02 01 01 F7 GO, cue 42, fader AB F0 7F <ID> 02 01 01 34 32 00 31 F7 GO, cue 0 (default fader XY) F0 7F <ID> 02 01 01 30 F7 GO, fader AB F0 7F <ID> 02 01 01 00 00 31 F7
Notes:	1. A GO without a cue number will start the next cue loaded. 2. A GO with 0 in the cue will ignore the cue number.

Command: **STOP** (cue) (fader)
Description: a Stop command with optional cue and fader data
Examples: STOP (default fader XY) F0 7F <ID> 02 01 **02** F7
STOP, fader AB F0 7F <ID> 02 01 **02** 00 00 31 F7
Notes: 1. A STOP with 0 in the cue will ignore the cue number.

Command: **TIMED GO** hr mn sc fr ff (cue) (fader)
Description: a GO command with time and optional cue and fader data
Examples: GO, cue 3, time 75 seconds
F0 7F <ID> 02 01 **04** 00 01 15 00 00 33 F7
GO, cue 2.1, fader AB, time 16.3 seconds
F0 7F <ID> 02 01 **04** 00 00 16 09 00 32 2e 31 00 31 F7
Notes: 1. hr : hours; mn : minutes; sc : seconds; fr : frames; ff : subframes
2. there are 30 frames in a second. 0.1 seconds is 3 frames
3. subframes are not used

Command: **LOAD** (cue) (fader)
Description: a LOAD command with optional cue and fader data
Examples: LOAD, cue 42, fader AB
F0 7F <ID> 02 01 **05** 34 32 00 31 F7
LOAD, cue 0 (default fader XY)
F0 7F <ID> 02 01 **05** 30 F7

Notes:

Command: **SET** control_number control_value
Description: to set manual levels
Examples: SET channel 5 at 30 F0 7F <ID> 02 01 **06** 05 00 1e 00 F7
SET channel 500 at 100 F0 7F <ID> 02 01 **06** 74 03 00 64 F7
Notes: 1. The control number is the channel number
2. The control value is the level
3. Both numbers are two 7-bit bytes LSB first.
4. 500 decimal is 1F4 but because 7-bits, shift the LSB's top bit to 374 or with LSB first: 74 03
5. Levels are in percentage 0 –100

Command: **FIRE** macro_number
Description: a run macro command
Examples: FIRE macro 3 F0 7F <ID> 02 01 **07** 03 F7
Notes: 1. Macro number is straight hex value.
2. Top macro number is 7F (127 decimal).

Command: **RESET**
Description: will unload both faders
Examples: RESET F0 7F <ID> 02 01 **0A** F7
Notes:

Sending MIDI:

The console can send commands corresponding with what the board user is doing. The MIDI Out must be turned on in setup and MIDI ID must have a valid number before the console will output MIDI. The console sends the following commands:

- GO (cue) fader
- STOP
- TIMED GO cue fader
- LOAD cue fader
- FIRE macro

MIDI Channel Data (keyboard MIDI)

The Bijou will send and receive MIDI Channel Voice commands following the guidelines of the International MIDI Association's "MIDI Detailed Specification 1.0". The following lists the commands with examples that the Bijou recognizes.

When pressing a key on a MIDI keyboard most units will output three bytes of data. They are a "Note On" command status byte a note number and a velocity number.

The "Note On" command status byte also declares what voice channel number. There are 16 voice channels. The Bijou will respond to channel 1 and channel 16. (Note that when looking at the hex number channel 1 equals a 0 in the hex output.)

The note number indicates which key is pressed. Middle C has a reference value of 60 decimal.

The velocity number usually how fast the key was pressed or what the volume is at that time. The Bijou does not use this number.

The Bijou will initiate a "GO" on either fader when the proper key is pressed. The key codes can be set in the Setup Screen in Default Settings 2. A value of zero will disable the function. Valid notes are 1 to 127.

Hex values:

9x	note on
	x = channel number (0-f is 1-16)
y	y = note number, 1-127
z	z = velocity (not used)

Examples (in hex):

9x y z	Note On, Channel x+1, Note y
90 02 00	Note On, Channel 1, Note 2
9f 3C 00	Note On, Channel 16, Note 60

The Bijou can also handle a function called running status. This is where the sender transmits the command status byte with the channel number only once. All subsequent transmissions are just the note byte and the velocity byte. The sender must send both bytes.

Example (in hex):

90 02 00	03 00	02 00	02 00
----------	-------	-------	-------